



Dart Hawkesbury  
1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada  
Tel (613) 632-5200

## Purchasing Receipts

PO No	Supplier	Line Item No	Rel No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Serial No	Status	Receive Date	Price/Unit	Aging Days	Past Due	Total	
PO039025	MES002-VC	1	1	Net 30	MT-1144-R3.500	1144 Steel Proof Round Bar 3.500"				12	2/23/2018	12		S045228	Stock	2/26/2018	\$ 72.70 / ft	0		\$87	
		2			MT-1144-R2.750	1144 Steel Proof Round Bar 2.750"						12		S045229	Stock	2/26/2018	\$ 46.85 / ft	0		\$56	
		3			M17-4-B1.000X02.000	17-4 SS Bar 1.00 x 2.00 : MATERIAL: 17-4 PH SS BAR AS PER AMS 5604/5643 GRAIN MUST BE ALONG LENGHT OF BAR MIN. YIELD TENSILE STRENGTH = 100 KSI MIN. ULTIMATE TENSILE STRENGTH = 150 KSI receive ft						12		S045230	Stock	2/26/2018	\$ 98.00 / ft	0		\$1,17	
		4			M17-4-R2.000	M174R2.000 : 17-4 PH / S17400 / TYPE 630 SS ROUND BAR PER AMS 5643/ ASTM A564 GRAIN MUST BE ALONG LENGTH OF BAR MINIMUM YIELD TENSILE STRENGTH = 100 KSI MINIMUM ULTIMATE TENSILE STRENGTH = 150 KSI receive ft						12		S045231	Stock	2/26/2018	\$ 55.00 / ft	0		\$66	
		5			MT-4140-B-0.625X3.000	4140 Steel Bar 0.625" x 3.000" : AISI 4140 STEEL BAR PER ASTM A29, AMS 6349, AMS 6382, AMS 6529, MIL-S-5626 MINIMUM ROCKWELL C = 28 RC MAXIMUM ROCKWELL C = 32 RC receive ft				4		4		S045232	Stock	2/26/2018	\$ 23.25 / ft	0		\$9	
		6			MT-BRASS-C360-R2.500	Brass C360 Round Bar 2.500"				1		1		S045233	Stock	2/26/2018	\$ 195.00 / ft	0		\$19	
Total:										53			53								\$2,814

Plex 2/26/2018 8:43 AM Dart.Dubois.Pascal

## Shipping Order

21/02/2018

METAUX SOLUTIONS INC  
2625 BOUL JACQUES CARTIER EST  
LONGUEUIL, QUEBEC  
J4N 1L7  
Tel.: 450 641-3330

Order : 132689  
Reference : 39025  
Ship : PICK UP / PICK UP

Customer: 6323336

DART AEROSPACE LTD  
1270, ABERDEEN STREET  
HAWKESBURY, ONTARIO  
K6A 1K7

Ship To

Same

Tel.: 1 613 632-3336

Item No.	Description	Qty	Qty. Deliver	B/O Qty
	***** FACTURER E-MAIL ***** SUPER IMPORTANT SUR LE PACKING SLIP INSCRIRE LES HEAT N			
CR31244	1144 STRESSPROOF 3.500" DIA 1 X 12.33' HT;A174572	12.33	12.33	e
CR23444	1144 STRESSPROOF 2.750 DIA 1 X 12.17' HT;NF100789514	12.17	12.17	e
SF12174	17-4PH FLAT 1.000 X 2.000 2 X 72' ***** HT;271802	12	12	e
SR2174	17-4PH ROU 2" DIA 1 X 12.5' HT;308C	12.5	12.5	e
MP5841H	4140 HTSR TFA PLATE .625" P.M. 1 X 3" X 48" HT;PM72973	30	30	e
BR212	BRASS ROU 2.500 DIA 1 X 12" HT;17-04-30440-1	1	1	e

SHIP JOURNEY COLLECT  
JP

1 BUNDLE  
02-22-18  
Pat Amel

Shipping : \_\_\_\_\_  
Package No : \_\_\_\_\_  
Merchandise Received: \_\_\_\_\_

Ref. : \_\_\_\_\_



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

# PURCHASE ORDER

## PO039025

**Supplier:** MES002-VC  
Metaux Solutions  
2625 boul Jacques-Cartier Est  
Longueuil  
QC  
J4N 1L7 Canada  
Phone: 800 558 8858  
Fax: 514 633 8044

**PO No:** PO039025

**PO Date:** 2/13/18

**Due Date:** 2/23/18

**Purchase Order**

**Revision:**

**Revision Date:**

**Ship-To Contact:** Lavoie, Chantal  
Phone: clavoie@dartaero.com

**E-MAILED**  
FEB 13 2018

**Ship To:** 1270 Aberdeen Street  
Hawkesbury  
ON  
K6A 1K7 Canada  
Phone: 613-632-5200

**Via:** Ground

**Pymt Terms:** Net 30

**Freight Terms:**

**Special Comments:**

### Items

Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	MT-1144-R3.500		1144 Steel Proof Round Bar 3.500"	Firmed	2/23/18	12 ft	0 ft 12	12 ft	\$72.70/ft FEB 26 2018	\$872.40
2	MT-1144-R2.750		1144 Steel Proof Round Bar 2.750"	Firmed	2/23/18	12 ft	0 ft 12	12 ft	\$46.85/ft FEB 26 2018	\$562.20
3	M17-4-B1.000X02.000		17-4 SS Bar 1.00 x 2.00 : MATERIAL: 17-4 PH SS BAR AS PER AMS 5604/5643 GRAIN MUST BE ALONG LENGHT OF BAR MIN. YIELD TENSILE STRENGTH = 100 KSI MIN. ULTIMATE TENSILE STRENGTH = 150 KSI receive ft	Firmed	2/23/18	12 ft	0 ft 12	12 ft	\$98.00/ft FEB 26 2018	\$1,176.00
4	M17-4-R2.000		M174R2.000 : 17-4 PH / S17400 / TYPE 630 SS ROUND BAR PER AMS 5643/ ASTM A564 GRAIN MUST BE ALONG LENGTH OF BAR MINIMUM YIELD TENSILE STRENGTH = 100 KSI MINIMUM ULTIMATE TENSILE STRENGTH = 150 KSI receive ft	Firmed	2/23/18	12 ft	0 ft 12	12 ft	\$55.00/ft FEB 26 2018	\$660.00
5	MT-4140-B-0.625X3.000		4140 Steel Bar <del>0.500 X 4.000</del> : AISI 4140 STEEL BAR PER ASTM A29, AMS 6349, AMS 6382, AMS 6529, MIL-S-5626 MINIMUM ROCKWELL C = 28 RC MAXIMUM ROCKWELL C = 32 RC receive ft	Firmed	2/23/18	4 ft	0 ft 4 4	4 ft	\$23.25/ft FEB 26 2018	\$93.00
6	MT-BRASS-C360-R2.500		Brass C360 Round Bar 2.500"	Firmed	2/23/18	1 ft	0 ft 1	1 ft	\$195.00/ft FEB 26 2018	\$195.00
Grand Total: \$3,558.60										

DAS  
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9-89

## Order Notes

## Procurement Quality Clauses

A005 right of entry

A012 chemical and physical test report

A016 personnel qualification

A017 raw material identification (as applicable)

A026 certification of material conformance

A041 quality management system

A042 dart notification by supplier

A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness



Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit [www.dartaerospace.com](http://www.dartaerospace.com) for further explanation.

Plex 2/13/18 10:19 AM dart.lavoie.chantal

## Jérôme Primeau

De: Chantal Lavoie <clavoie@dartaero.com>  
Envoyé: Friday, February 9, 2018 8:31 AM  
À: Jérôme Primeau  
Cc: Daniel Paquette  
Objet: quote

Good morning Jerome,  
Please advise price and delivery on mat'l.

~~304 bar 0.125" x 0.750" x 12 ft 1.60/ft~~

~~1144 round bar 3.5" x 12 ft 72.70/ft~~

~~1144 round bar 2.750" x 12 ft 46.85/ft~~

~~4140 round bar 0.375" x 12 ft HT only 13.90/ft~~

~~01 bar 0.250" mx 0.378 (0.375)" x 8 ft OFFER 3 PCS OF 36"  $\frac{1}{4} \times \frac{1}{2} = 26.95/ft$~~

~~1026  
1010 round tubing 0.750" x 0.188" wall x 12 ft 8.05/ft~~

~~1018 bar 0.375" x 0.750" x 8 ft 12' 2.30/ft~~

~~1018 bar 0.375" x 0.750" x 8 ft 12' 2.30/ft~~

~~1018 bar 0.313" x 1.250" x 12 ft 3.35/ft~~

~~17-4 bar 1" x 2" x 12 ft OFFER 2x6' 98.00/ft~~

~~17-4 round bar 2" x 8 ft 12' only 55.00/ft~~

~~4140H round bar 0.500" x 96 ft R/Q 3.95/ft~~

~~4130 ROUND BAR 0.3125 X 12 FT Regret~~

~~4140 BAR 0.625" X 3" X 4 FT 93.00/pc 23.25~~

~~Brass C360 round bar 2.5" x minimum X 12' = 195.00/pc~~

~~Bronze 630 round bar 2.375" (or 2.5" x) minimum. X 13' 671.60/ft~~

Thanks  
Chantal

~~Sand Cast~~

~~C-958~~

~~aircraft spec~~  
~~5/7 days~~

Chantal Lavoie  
Purchasing Coordinator

DART AEROSPACE  
T 1 613 632-5200  
F 1 613 632-1053  
E [clavoie@dartaero.com](mailto:clavoie@dartaero.com)

*Merci*  
*primeau*



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

## PURCHASE ORDER PO039025

**Supplier:** MES002-VC  
Metaux Solutions  
2625 boul Jacques-Cartier Est  
Longueuil  
QC  
J4N 1L7 Canada  
Phone: 800 558 8858  
Fax: 514 633 8044

**PO No:** PO039025  
**PO Date:** 2/13/18  
**Due Date:** 2/23/18  
**Purchase Order  
Revision:**  
**Revision Date:**  
**Ship-To Contact:** Lavoie, Chantal  
Phone: clavole@dartaero.com

**Ship To:** 1270 Aberdeen Street  
Hawkesbury  
ON  
K6A 1K7 Canada  
Phone: 613-632-5200

**Via:** Ground  
**Pymt Terms:** Net 30  
**Freight Terms:**  
**Special Comments:**

Items										
Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
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2	MT-1144-R2.750		1144 Steel Proof Round Bar 2.750"	Firmed	2/23/18	12 ft	0 ft	12 ft	\$46.85/ft	\$562.20
3	M17-4-B1.000X02.000		17-4 SS Bar 1.00 x 2.00 : MATERIAL: 17-4 PH SS BAR AS PER AMS 5604/5643 GRAIN MUST BE ALONG LENGHT OF BAR MIN. YIELD TENSILE STRENGTH = 100 KSI MIN. ULTIMATE TENSILE STRENGTH = 150 KSI receive ft	Firmed	2/23/18	12 ft	0 ft	12 ft	\$98.00/ft	\$1,176.00
4	M17-4-R2.000		M174R2.000 : 17-4 PH / S17400 / TYPE 630 SS ROUND BAR PER AMS 5643/ ASTM A584 GRAIN MUST BE ALONG LENGTH OF BAR MINIMUM YIELD TENSILE STRENGTH = 100 KSI MINIMUM ULTIMATE TENSILE STRENGTH = 150 KSI receive ft	Firmed	2/23/18	12 ft	0 ft	12 ft	\$55.00/ft	\$660.00
5	MT-4140-B-0.625X3.000		4140 Steel Bar 0.500 X 4.000 : AISI 4140 STEEL BAR PER ASTM A29, AMS 6349, AMS 6382, AMS 6529, MIL-S-5626 MINIMUM ROCKWELL C = 28 RC MAXIMUM ROCKWELL C = 32 RC receive ft	Firmed	2/23/18	4 ft	0 ft	4 ft	\$23.25/ft	\$93.00
6	MT-BRASS-C360-R2.500		Brass C360 Round Bar 2.500"	Firmed	2/23/18	1 ft	0 ft	1 ft	\$195.00/ft	\$195.00
<b>Grand Total:</b>										<b>\$3,558.60</b>

Plex 2/13/18 10:19 AM dart.lavoie.chantal

## MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-Brass-C360-R2.500

PO / BATCH NO.: Q39025/5045233

DATE: FEB 26 2018

MATERIAL CERT REC'D: yes  
 QUANTITY RECEIVED: 1  
 QUANTITY INSPECTED: 1  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 2.500  
 THICKNESS RECEIVED: 2.500  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	Y (N)	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	Y (N)	
CORRECT MATERIAL PER M-DRAWING	Y (N)	<u>Astm B16</u>
CORRECT THICKNESS	Y (N)	
PHOTO REQUIRED	Y (N)	
CORRECT REF # TO LINK CERT	Y (N)	<u>Heat # 17-04-50480-1</u>
CORRECT MATERIAL IDENTIFICATION	Y (N)	
CORRECT M# ON THE MATERIAL	Y (N)	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS 11</u> DATE: <u>FEB 26 2018</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in





# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT4140-B-0.625x3.000

PO / BATCH NO.: 039025/6045232

DATE: FEB 26 2018

MATERIAL CERT REC'D: yes  
 QUANTITY RECEIVED: 41  
 QUANTITY INSPECTED: 41  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.625x3.000  
 THICKNESS RECEIVED: 0.625x3.250  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

\* acceptable  
 extra mat.  
 will be  
 machine off  
 13-2-26

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	(Y) N	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	(Y) N	
CORRECT MATERIAL PER M-DRAWING	(Y) N	Austen A829
CORRECT THICKNESS	(Y) N	
PHOTO REQUIRED	X (N)	
CORRECT REF # TO LINK CERT	(Y) N	Heat # Pm172973
CORRECT MATERIAL IDENTIFICATION	(Y) N	
CORRECT M# ON THE MATERIAL	(Y) N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

*testers located in the Quality Office*

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAK</u> DATE: <u>FEB 26 2018</u>	SIGNED OFF BY: _____ DATE: _____	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
A	NEW ISSUE	18-544	18.2.13	VM	ML

# **SPECIFICATION CONTROL DRAWING**

PURCHASE MATERIAL : AISI 4140 / 4142 STEEL SHEET OR PLATE  
 MINIMUM ROCKWELL C = 28 Rc  
 MAXIMUM ROCKWELL C = 32 Rc

SPECIFICATION: ASTM A829, AMS 6395

PART NUMBER: MT-4140-S-[T.TTT] x [W.WWW]  
 WHERE "T.TTT" = THICKNESS IN INCHES  
 WHERE "W.WWW" = WIDTH IN INCHES (OPTIONAL FOR SPECIFYING CUT PLATE)

EX. 0.063" THICK SHEET = MT-4140-S-0.063  
 EX. 3.5" WIDE BY 0.500" THICK PLATE = MT-4140-S-0.500X3.500



TITLE		PART NO.		REV
AISI 4140 / 4142 STEEL SHEET OR PLATE		MT-4140-S		A
TOOL NO.		UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES DIMENSIONS APPLY AFTER FINISHING		
DESIGNED BY:	INITIALS AND DATE	TOLERANCES:		
DRAWN BY:	VM 02/13/2018	FRACTIONS ± 1/8		
CHECKED BY:	VM 02/13/2018	XXX ± .005		
MFG REVIEW BY:	DD 02/13/2018	X ± .1		
APPROVED BY:	ML 02/14/2018	SURFACE ROUGHNESS		
SCALE: NTS		SHEET 1 OF 1		
THIS DOCUMENT IS THE PROPERTY OF PART Aerospace LTD. IT IS TO BE USED ONLY FOR THE PURPOSES AND IN THE MANNER FOR WHICH IT WAS ISSUED. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN PERMISSION OF PART Aerospace LTD.				

## MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M17-4-R2.000  
 DATE: FEB 26 2018

PO / BATCH NO.: 038025/5045231

MATERIAL CERT REC'D: yes  
 QUANTITY RECEIVED: 12'  
 QUANTITY INSPECTED: 12'  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 2.000  
 THICKNESS RECEIVED: 2.000  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	<input checked="" type="checkbox"/> Y	<input checked="" type="checkbox"/> N	
CORRECT FINISH	<input checked="" type="checkbox"/> Y	<input checked="" type="checkbox"/> N	
CORROSION	<input checked="" type="checkbox"/> Y	<input checked="" type="checkbox"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/> Y	<input checked="" type="checkbox"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/> Y	<input checked="" type="checkbox"/> N	<u>AMS 5646 AMS 5643</u>
CORRECT THICKNESS	<input checked="" type="checkbox"/> Y	<input checked="" type="checkbox"/> N	
PHOTO REQUIRED	<input checked="" type="checkbox"/> Y	<input checked="" type="checkbox"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/> Y	<input checked="" type="checkbox"/> N	<u>Heat # 308C</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/> Y	<input checked="" type="checkbox"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/> Y	<input checked="" type="checkbox"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="checkbox"/> Y	<input checked="" type="checkbox"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="checkbox"/> Y	<input checked="" type="checkbox"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

*testers located in the Quality Office*

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS 11</u> DATE: <u>9-89 FEB 26 2018</u>	SIGNED OFF BY: _____ DATE: _____	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 17-4 PH / S17400 / TYPE 630 SS ROUND BAR  
GRAIN MUST BE ALONG LENGTH OF BAR  
MINIMUM YIELD STRENGTH PER TABLE  
MINIMUM ULTIMATE STRENGTH PER TABLE

SPECIFICATION: AMS 5643 OR ASTM A564

PART NUMBER: M17-4-|HHHH-|R|X.XXX| WHERE: HHHH SPECIFIES THE MATERIAL CONDITION (PER TABLE BELOW)  
COND O.D. X.XXX = DIAMETER (IN INCHES)

MATERIAL CONDITION TABLE:

CODE	CONDITION	MIN YIELD TENSILE STRENGTH (KSI)	MIN ULTIMATE TENSILE STRENGTH (KSI)
(OMITTED)	NONE SPECIFIED (CONDITION A NOT ACCEPTABLE)	100	150
H900	H900	170	190
H925	H925	155	170
H1025	H1025	145	155
H1075	H1075	125	145
H1100	H1100	115	140
H1150	H1150	105	135
CONDA	CONDITION A (SOLUTION TREATED)		

NOTES: MATERIAL IN H900 AND H925 CONDITION NOT RECOMMENDED FOR TENSION OR SHEAR APPLICATIONS IN COLD WEATHER CONDITIONS  
MATERIAL IN H900 AND H925 CONDITION NOT RECOMMENDED FOR APPLICATIONS WHERE STRESS CORROSION CRACKING IS POSSIBLE  
CONDITION A NOT TO BE USED IN DESIGN FOR FINAL PRODUCT AND SHOULD ALWAYS BE HEAT TREATED

EXAMPLES:

PART NUMBER  
4.000" DIAMETER BAR MIN UTS = 150 KSI, MIN YTS = 100 KSI  
2.500" DIAMETER BAR H900 CONDITION  
3.250" DIAMETER BAR H1025 CONDITION  
0.750" DIAMETER BAR A CONDITION

RELEASED  
2017-10-31  
E(17-728)

APPROVED

C	ADDED MATERIAL CONDITION (CIR17-107)	NO	17.09.14
B	REFORMAT DWG. S17400/TYPE 630 ADDED TO PURCHASE MATERIAL (ZN D6-1), ADD A564 SPEC (C8-1).	VS	10.05.20
A	NEW ISSUE	CP	05.03.16
REV.	DESCRIPTION	BY	DATE
DESIGN	NO		
DRAWN	NO		
CHECKED	CP		
MFG. APPR.	RA		
APPROVED	WM		
DE APPR.	CP		
DATE	17.09.14		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		REV. C	
DRAWING NO. M17-4-R		SHEET 1 OF 1	
TITLE 17-4 SS ROUND BAR		SCALE NTS	
COPYRIGHT © 2004 BY DART AEROSPACE LTD. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE SAME CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE LTD.			

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M17-4-B1-000x02.000

PO / BATCH NO: 039025/6045230

DATE: FEB 26 2018

MATERIAL CERT REC'D: yes

THICKNESS ORDERED: 1.000

QUANTITY RECEIVED: 12'

THICKNESS RECEIVED: 1.000

QUANTITY INSPECTED: 12'

SHEET SIZE ORDERED: N/A

QUANTITY REJECTED: 0

SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y N	
CORROSION	Y <input checked="" type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y N	Ans 5643
CORRECT THICKNESS	<input checked="" type="radio"/> Y N	
PHOTO REQUIRED	Y <input checked="" type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y N	Heat # 271802
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

*testers located in the Quality Office*

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>DAS 11</u>	SIGNED OFF BY: _____		
DATE: <u>FEB 26 2018</u>	DATE: _____		

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# SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 17-4 PH / TYPE 630 / S17400 SS BAR  
GRAIN MUST BE ALONG LENGTH OF BAR  
MINIMUM YIELD STRENGTH PER TABLE  
MINIMUM ULTIMATE STRENGTH PER TABLE

SPECIFICATION: AMS 5604 OR AMS 5643 OR ASTM A693 OR ASTM 564

PART NUMBER: M17-4- HHHH-B TTTT X WWWW  
COND THICK WIDTH WHERE: HHHH SPECIFIES THE MATERIAL CONDITION (PER TABLE BELOW)  
TTTT SPECIFIES THE THICKNESS  
WWW SPECIFIES THE WIDTH

MATERIAL CONDITION TABLE:

CODE	CONDITION	MIN YIELD TENSILE STRENGTH (KSI)	MIN ULTIMATE TENSILE STRENGTH (KSI)
(OMITTED)	NONE SPECIFIED (CONDITION A NOT ACCEPTABLE)	100	150
H900	H900	170	190
H925	H925	155	170
H1025	H1025	145	155
H1075	H1075	125	145
H1100	H1100	115	140
H1150	H1150	105	135
CONDA	CONDITION A (SOLUTION TREATED)		

NOTES: MATERIAL IN H900 AND H925 CONDITION NOT RECOMMENDED FOR TENSION OR SHEAR APPLICATIONS IN COLD WEATHER CONDITIONS  
MATERIAL IN H900 AND H925 CONDITION NOT RECOMMENDED FOR APPLICATIONS WHERE STRESS CORROSION CRACKING IS POSSIBLE  
CONDITION A NOT TO BE USED IN DESIGN FOR FINAL PRODUCT AND SHOULD ALWAYS BE HEAT TREATED

EXAMPLES:

PART NUMBER  
0.250" X 4.000" BAR MIN UTS = 150 KSI, MIN YTS = 100 KSI  
1.000" X 2.500" BAR H900 CONDITION  
0.500" X 3.250" BAR H1025 CONDITION  
0.750" X 2.500" BAR A CONDITION

RELEASED  
2017-10-31  
EAM17-728

APPROVED

B	ADD MATERIAL CONDITION AND REFORMAT DRAWING (CIR17-107)	NO	17.09.14
A	NEW ISSUE	DS	02.04.18
REV.	DESCRIPTION	BY	DATE
DRAWN	NO		
CHECKED	NO		
MFG. APPR.	CP		
APPROVED	DD		
DE APPR.	WM		
DATE	17.09.14		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
DRAWING NO. M17-4-B			
REV. B			
SHEET 1 OF 1			
TITLE 17-4 SS BAR			
SCALE NTS			
COPYRIGHT © 2002 BY DART AEROSPACE LTD. THIS DOCUMENT IS PRINTED AND COPIED OR REPRODUCED IN ANY FORM OR BY ANY MEANS WITHOUT WRITTEN PERMISSION OF DART AEROSPACE LTD.			

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-1144-R2.750  
 DATE: FEB 23 2018

PO / BATCH NO: 039025/5045229

MATERIAL CERT REC'D: Yes  
 QUANTITY RECEIVED: 12'  
 QUANTITY INSPECTED: 12'  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 2.750  
 THICKNESS RECEIVED: 2.750  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT FINISH	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORROSION	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y <input type="radio"/> N	<u>Astm A108</u>
CORRECT THICKNESS	<input checked="" type="radio"/> Y <input type="radio"/> N	
PHOTO REQUIRED	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y <input type="radio"/> N	<u>Heat # NF100789514</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y <input type="radio"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="radio"/> N <input type="radio"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="radio"/> N <input type="radio"/>	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS</u> <u>11</u> DATE: <u>9-89 FEB 23 2018</u>	SIGNED OFF BY: <u>See attached</u> DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

AISI 1144 StressProof®

Per MT-1144-R

It is acceptable to receive AISI 1144 StressProof® per the manufacturer's specification ASTM A108.  
(Must meet A29 specifications, A29 covers A311 (AISI 1144))



Michael Lee



## MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-1144-R3.500  
 DATE: FEB 23 2018

PO / BATCH NO.: 039025/5045228

MATERIAL CERT REC'D: Yes  
 QUANTITY RECEIVED: 12'  
 QUANTITY INSPECTED: 12'  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 3.500  
 THICKNESS RECEIVED: 3.500  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	<input checked="" type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y	N	
CORROSION	Y	<input checked="" type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y	N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y	N	<u>Astm A108</u>
CORRECT THICKNESS	<input checked="" type="radio"/> Y	N	
PHOTO REQUIRED	Y	<input checked="" type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y	N	<u>Heat # A174572</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y	N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	<input checked="" type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	<input checked="" type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS 11</u> DATE: <u>9-89 FEB 23 2018</u>	SIGNED OFF BY: <u>see attached</u> DATE: _____	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

AISI 1144 StressProof®

Per MT-1144-R

It is acceptable to receive AISI 1144 StressProof® per the manufacturer's specification ASTM A108.  
(Must meet A29 specifications, A29 covers A311 (AISI 1144))



Michael Lee

# CERTIFICATE OF TEST CERTIFICAT D'ESSAIS

Page 01 of 01

Certification Date  
20-FEB-2018

CUSTOMER ORDER NUMBER  
NUMÉRO DE COMMANDE DU CLIENT

Invoice Number  
T376137

44173-J  
PART NUMBER/NUMÉRO DE PIÈCE  
501954

<b>SOLD TO:</b> METAUX SOLUTIONS INC.	<b>SHIP TO:</b> METAUX SOLUTIONS (RIVE-SUD)
<b>VENDU À:</b> 2625 BOUL JACQUES CARTIER EST	2625 BOUL JACQUES CARTIER EST
LONGUEUIL QC J4N 1L7	LONGUEUIL QC J4N 1

Description: 1144 CF BAR ASTM A108  
3-1/2 RD X 12' R/L  
HEAT: A174572 ITEM: 501954

Line Total: 399 LB

Specifications:  
ASTM A108 13 ASTM A 29/A29M 15

## CHEMICAL ANALYSIS

C	MN	P	S	SI	NI	CR	MO
0.43	1.38	0.004	0.259	0.23	0.06	0.12	0.02
CU	AL	V	NB	B			
0.16	0.001	0.004	0.001	0.0011			

RCPT: R385064

COUNTRY OF ORIGIN : USA

IDEAL DIAMETER : 2.19 IN

MATERIAL IS FREE FROM MERCURY CONTAMINATION  
NO WELD REPAIR PERFORMED ON MATERIAL

COMMENTS  
CAST BLOOM RED RATIO 14.0:1

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination. /Les informations ci-haut-mentionnées sont transcrites du certificat d'essais du manufacturier après vérification de l'état complet des spécifications inscrites sur le certificat. We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes. /Les informations fausses, fictives ou frauduleuses en rapport avec le résultat des essais sont punissables en vertu des lois fédérales.

Material did not come in contact with mercury while in our possession./Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

JOANNE DESPRES



MANAGER QUALITY ASSURANCE  
GÉRANT DE L'ASSURANCE QUALITÉ

# CERTIFICATE OF TEST CERTIFICAT D'ESSAIS

Page 01 of 01

Certification Date  
20-FEB-2018

CUSTOMER ORDER NUMBER  
NUMÉRO DE COMMANDE DU CLIENT

44173-J

PART NUMBER/NUMÉRO DE PIÈCE

501948

Invoice Number  
T376138

SOLD TO: METAUX SOLUTIONS INC.  
VENDU À:

SHIP TO:  
EXPÉDIÉ À:

METAUX SOLUTIONS (RIVE-SUD)

2625 BOUL JACQUES CARTIER EST  
LONGUEUIL QC J4N 1L7

2625 BOUL JACQUES CARTIER EST  
LONGUEUIL QC J4N 1

Description: 1144 CF BAR ASTM A108

2-3/4 RD X 12' R/L

HEAT: NF100789514

ITEM: 501948

Line Total: 244 LB

Specifications:  
ASTM A108

## CHEMICAL ANALYSIS

C	MN	P	S	SI	CU	CR	NI
0.44	1.39	0.0090	0.273	0.19	0.13	0.09	0.06
MO	SN	V	CB	PB			
0.01	0.007	0.002	0.003	0.001			

RCPT: R379731

COUNTRY OF ORIGIN : USA

IDEAL DIAMETER : 2.01 IN

STRAND CAST REDUCTION RATIO 7.1 TO 1  
MATERIAL IS FREE FROM MERCURY CONTAMINATION  
NO WELD REPAIR PERFORMED ON MATERIAL

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination. /Les informations ci-haut-mentionnées sont transcrites du certificat d'essais du manufacturier après vérification de l'état complet des spécifications inscrites sur le certificat. We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

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Material did not come in contact with mercury while in our possession./Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

JOANNE DESPRES



MANAGER QUALITY ASSURANCE  
GÉRANT DE L'ASSURANCE QUALITÉ

# CERTIFICATE OF TEST CERTIFICAT D'ESSAIS

Page 01 of 02

Certification Date  
20-FEB-2018

CUSTOMER ORDER NUMBER  
NUMÉRO DE COMMANDE DU CLIENT

Invoice Number  
T376139

44173-J  
PART NUMBER/NUMÉRO DE PIÈCE  
510539

SOLD TO:	METAUX SOLUTIONS INC.	SHIP TO:	METAUX SOLUTIONS (RIVE-SUD)
VENDU À:	2625 BOUL JACQUES CARTIER EST LONGUEUIL QC J4N 1L7	EXPÉDIÉ À:	2625 BOUL JACQUES CARTIER EST LONGUEUIL QC J4N 1

Description: 17-4 SOL ANN CF BAR  
2 RD X 12' R/L  
HEAT: 308C  
ITEM: 510539  
ASTM A564  
Line Total: 133.625 LB

Specifications:  
AMS 5643 R  
ASTM F899 12B  
ASTM A564 T630 13  
ASTM A484 14  
ASME SA564 T630 07  
AMS 2303 F

## CHEMICAL ANALYSIS

C	CB	CO	CR	CU	MN	MO	N
0.019	0.1950	0.05	15.43	3.24	0.80	0.02	0.037
NI	P	S	SI	TA	TI	CBTA	
4.27	0.017	0.0265	0.50	0.005	0.002	0.20	

RCPT: R324374

COUNTRY OF ORIGIN : USA

## MECHANICAL PROPERTIES

DESCRIPTION	YLD STR	ULT TEN	%ELONG	%RED IN AREA	HARDNESS BHN
COND A					363
DESCRIPTION	YLD STR KSI	ULT TEN KSI	%ELONG IN 02 IN	%RED IN AREA	HARDNESS RC
DEV: H900 L	178.23	201.03	11.8	47.91	43

GRAIN SIZE : 9 -

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination. /Les informations ci-haut-mentionnées sont transcrites du certificat d'essais du manufacturier après vérification de l'état complet des spécifications inscrites sur le certificat. We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes. /Les informations fausses, fictives ou frauduleuses en rapport avec le résultat des essais sont punissables en vertu des lois fédérales.

Material did not come in contact with mercury while in our possession. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

JOANNE DESPRES



MANAGER QUALITY ASSURANCE  
GÉRANT DE L'ASSURANCE QUALITÉ

# CERTIFICATE OF TEST CERTIFICAT D'ESSAIS

Page 02 of 02

Certification Date  
20-FEB-2018

CUSTOMER ORDER NUMBER  
NUMÉRO DE COMMANDE DU CLIENT

44173-J

Invoice Number  
T376139

PART NUMBER/NUMÉRO DE PIÈCE

510539

SOLD TO: METAUX SOLUTIONS INC.  
VENDU À:

SHIP TO:  
EXPÉDIÉ À:

METAUX SOLUTIONS (RIVE-SUD)

2625 BOUL JACQUES CARTIER EST  
LONGUEUIL QC J4N 1L7

2625 BOUL JACQUES CARTIER EST  
LONGUEUIL QC J4N 1

Description: 17-4 SOL ANN CF BAR  
2 RD X 12' R/L  
HEAT: 308C

ASTM A564  
Line Total: 133.625 LB

ITEM: 510539

MATERIAL IS FREE FROM MERCURY CONTAMINATION  
NO WELD REPAIR PERFORMED ON MATERIAL  
MACRO: OK  
MICRO1: OK

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination. /Les informations ci-haut-mentionnées sont transcrites du certificat d'essais du manufacturier après vérification de l'état complet des spécifications inscrites sur le certificat. We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.  
The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes. /Les informations fausses, fictives ou frauduleuses en rapport avec le résultat des essais sont punissables en vertu des lois fédérales.

Material did not come in contact with mercury while in our possession./Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

JOANNE DESPRES



MANAGER QUALITY ASSURANCE  
GÉRANT DE L'ASSURANCE QUALITÉ

Sales Order: 208136

Customer PO: 43785-JF

Product Description

MSP03750

Shipped Pcs

1.00

Shipped Lbs

558.00

Back Ordred

0.00

Drop Ship Ref:

PO LINE

3/8 X 34 1/8" X 144 1/4" MARSHALLOY STANDARD DELUXE PLATE 4140/42 PREHAF

MARSHALLOY STANDARD DELUXE

ASTM A-829

DFARS Compliant

PLATE#: 418382C

PM HEAT#: 84288 ✓

BHN 284.00

Country of Origin USA

C - 0.4300 Mn - 0.8200

P - 0.0070

Si - 0.2300

Ni - 0.0700

Cr - 0.8200 Mo - 0.1500

Cu - 0.1400

V - 0.0370

Product Description

MSP06250

Shipped Pcs

1.00

Shipped Lbs

905.00

Back Ordred

0.00

PO LINE

5/8 X 33 5/8" X 146" MARSHALLOY STANDARD DELUXE PLATE 4140/42 PREHARD

MARSHALLOY STANDARD DELUXE

ASTM A-829

DFARS Compliant

PLATE#: 416354A

PM HEAT#: 72973

BHN 276.00

Country of Origin SLOVENIA

C - 0.4300 Mn - 0.7710

P - 0.0100

S - 0.0010

Si - 0.2040

Ni - 0.1500

Cr - 1.0100 Mo - 0.1500

Cu - 0.2500

V - 0.0300

F

12 DEC 2011

Spécialisé

VA 6786186

31614-7.pdf

Certificate No. 2017-12-13- 056 - 23

# CERTIFICATE OF QUALITY

Customer : DAECHANG AMERICA INC.  
 Specification : ASTM B16-10&249-12 C36000 H02  
 Lot-No. : 17-04-30440-1  
 Size : 2-1/2" x 12 FT  
 Form : ROUND  
 Weight : 786 kg  
 Item ID :

Daechang Co., Ltd.  
 15076, (Jeongwang-dong), 391,  
 Gongdan1-daero, Siheung-Si  
 Gyeonggi-do, Korea  
 Tel. 82-31-496-3133  
 Fax. 82-31-499-2531

## Chemical Compositions

	Element(%)					
	Cu	Pb	Fe	Sn	Zn	
Max	63.00	3.00	0.35		Rem.	
Min	60.00	2.50			Rem.	
Results	60.4459	2.6881	0.1370	0.1549	Rem.	

## Mechanical Properties

Test Item	Unit	Spec.	Results
Tensile Strength	Ksi		56
Yield Strength	Ksi		26
Elongation	(%)		50.5
Hardness	HRB		50.4
S.C.C*			Good

\*S.C.C : Stress Corrosion Cracking  
 (KS D5101, JIS H3250, ASTM B858)  
 (Ammonia Vapor)

## Dimension\*

Check Terms	Unit	Results
Diameter	mm	63.49 ~ 63.51
Inner	mm	
Length	mm	3659 ~ 3661
Straightness	mm/m	3 ~ 3.5 / 3
Appearance	-	Good
Angle radius	-	Good
Final decision	-	O.K

\*n=2, C=0

## Remarks

P.O.NO : P031614

APPROVAL

*[Signature]*  
 K.S. Kang

\* This certificate is issued for the purpose of quality control.

\* This certificate is a data of tested sample randomly and it is strictly forbidden to use for anything other purposes.

DAECHANG Co.,Ltd.





## CERTIFICATO DI COLLAUDO - ABNAHMEPRUEFZEUGNIS - INSPECTION CERTIFICATE - CERTIFICAT DE RECEPTION

In conformità a: EN 10204 (2004), 3.1 / ISO 10474 (2013), 3.1

Certificato nr. MEST065973 / 2017 /  
Prüfung/Text/Essai



Stato di fornitura: Hot rolled Descaud COND. A Hot rolled  
Lieferzustand:  
Delivery state:  
Etat de livraison:

Produttore:  
Hersteller/Hersteller/Hersteller

ACCIAIERIE VALBRUNA S.P.A.

Ordine nr: 50002 STOCK POMPTON  
Bestell-  
Your order  
Commande

Tipo di Elaborazione: E+AOD  
Erkennungsart:  
Marking process:  
Markenbezeichnung:

Marchi di Fabbrica:  
Zeichen des Herstellers:  
Trade marks:  
Signes de l'usine productrice



Conferma ordine nr: EI16006965  
Werk Auftragsbestätigung

Qualità: 630  
Werkstoff/Grade/Qualität

Punzone del Collaudatore:  
Stempel des Werkstoffverständigen:  
Inspection stamp/Inspection stamp

MR

Avviso di Spedizioni: D-VI7013196  
Lieferzustand: offloading 155 B.L.

Marcia: V174  
Markenbezeichnung:  
Brand / Marque

Punzonatura: 630  
Markenbezeichnung:  
Marking:  
Marquage

### SPECIFICHE:

Anforderungen / Requirements / Exigences

Note:

Anforderungen / Notes / Notes

VSI FLAT 2. 630 A  
AIS: 630  
AMS 2303 F  
AMS 5643 D S17400 A  
AMS F 6875 B NOVEMBER 2010  
ASME SA564 2015 S17400 A (0)  
ASTM A370 2015  
ASTM A564 2013 S17400 A  
ASTM F899 2012 630

(0)SECTION II PART A 2015 EDITION

Tolleranza: ASTM A484-16 TABLE 5

Pos. nr. Pos. nr. No. de série	Oggetto Gegenstand Product description Objet	Dimensioni - In Abmessungen Dimensions Dimensions	Lunghezza - In Länge Length Longueur	Colata Schmelze Cast Coulée	Pezzi Stücke Pieces Pièces	Peso - LB Gewicht Poids	Lotto nr. Losn. Lot no. Lot no.
0040	Flat	2.0000 x 1.0000	154/ 156	271802		3.572	627910810

### TEST ALLO STATO DI FORNITURA

Test on delivery condition / Prüfung auf Lieferbereitem produkt / Test à l'état de fourniture / Prueba sobre el material así como entregado

TEST	Provenienza / Provenance Lieferantenbezeichnung From Supplier Provenance	Temperatura / Temperature Temperatur Temperature Temperatura	Snervamento / Yield strength Streckgrenze Yield strength Limite d'élasticité	Snervamento / Yield strength Streckgrenze Yield strength Limite d'élasticité	Resistenza / Tensile strength Zugfestigkeit Tensile strength Résistance à la traction	Allungamento / Elongation Bruchdehnung Elongation Allongement	Strizione / Reduction of area Bruchdehnung Reduction of area Striction	Resilienza / Resilience Härte Resilience Résilience	Durezza / Hardness Härte Hardness Dureté
	Valori richiesti Anforderungen/Bedingungen Values demanded	min max							
A									363
									348

### TEST ALLO STATO DI FORNITURA

Test on delivery condition / Prüfung auf Lieferbereitem produkt / Test à l'état de fourniture / Prueba sobre el material así como entregado

TEST	min	max	
A Delta Ferrite		5,0	1,0 %
A Grain size for ASTM E112			6
A RATINGS FREQUENCY		1,10	0
A RATINGS SEVERITY		1,05	0

Vicenza, 08/05/17

VC0208 - MEST065973

(Mod. MCE2)

Il collaudatore di stabilimento / der Werkstoffverständige / Works Inspector / L'agent d'usine

M. RIZZOTTO

Pagina - 1 di 3





# Acciaierie Valbruna S.p.A.

36100 VICENZA (Italia) - Viale della scienza, 25 z.1  
 Telefono 0444.968211 - Fax 0444.968336  
 Stab.: 39100 BOLZANO (Italia) - Via A. Volta, 4/37  
 Telefono 0471.924111 - Fax 0471.924497

## CERTIFICATO DI COLLAUDO - ABNAHMEPRUEFZEUGNIS - INSPECTION CERTIFICATE - CERTIFICAT DE RECEPTION

In conformità a: EN 10204 (2004), 3.1 / ISO 10474 (2013), 3.1

Certificato nr. MEST065973 / 2017 /

Nach: According to Seen

Prüfung: To be seen

Stato di fornitura: Hot rolled Descaud COND. A Hot  
 Lieferzustand: rolled  
 Delivery state:  
 Etappe livraison:

Produttore:  
 Hersteller: Acciaierie Valbruna

ACCIAIERIE VALBRUNA S.P.A.

Ordine nr: 50002 STOCK POMPTON

Besitz:  
 Your order:  
 Commande:

Tipo di Elaborazione: E+AOD  
 Herstellungsart:  
 Manufacturing process:  
 Mode d'élaboration:

Marchi di Fabbrica:  
 Zeichen des Erzeugerwerkes:  
 Trade marks:  
 Signes de fabrique productrice:



Conferma ordine nr: EI16006965

Werkstoff: Order No. nr:

Qualität: 630  
 Verfestigungsbezeichnung:

Punzone del Collaudatore:  
 Stempel des Werkstoffverständigen:  
 Inspector's stamp: Pompton de l'attestation:

MR

Avviso di Spedizione: D-VI17013196

Lieferanweisung: Packing sheet:

Marca: V174  
 Markenbezeichnung:  
 Brand / Marque:

Punzonatura: 630  
 Kennzeichnung:  
 Marking:  
 Marquage:

Melted and manufactured in Italy No welding or weld repair Material free from Mercury contamination

We declare that the finished product is checked for radioactive contamination through Portal System when it leaves the production plant.

### QUALITY MANAGEMENT SYSTEM CERTIFIED BY LLOYD'S REGISTER ACCORDING TO ISO 9001 : 2008, ISO/TS16949 : 2009, AS 9100C

The Quality Management System is Certified acc. Pressure Equipment Directive ('97/23/EC') Annex 1, s. 4.3 and 2014/68/EU by TÜV and LLOYD'S

Any act of tampering, modification, alteration, counterfeiting and/or falsification and/or any other action which modifies the contents of this test certificate shall constitute a violation of applicable civil and criminal laws. Acciaierie Valbruna shall protect its rights and interests before any competent court, authority and jurisdiction.

Maximal and/or Valplus grades/products are manufactured with ladle techniques to control composition, distribution, size and shape of non-metallic inclusions for improved machinability.

The supplied product conforms to requirements expressly requested by the purchaser and conforms to requirements specified by certified norms and standards. Should the product be used for more severe, critical and/or in any case different applications than those the material is generally intended for, any different and/or supplementary requirements shall be specifically demanded, at least, upon order of the Product by the Purchaser. Acciaierie Valbruna SpA shall not be responsible for any improper use of the Products.

Vicenza, 08/05/17

VCC0038 - MEST065973

Mod. MCE2)

Il collaudatore di stabilimento / der Werkstoffverständige / Works Inspector / L'agent d'usine

M. RIZZOTTI

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